

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference NSK002767PCT	FOR FURTHER ACTION	
	See item 4 below	
International application No. PCT/JP2005/001162	International filing date (<i>day/month/year</i>) 21 January 2005 (21.01.2005)	Priority date (<i>day/month/year</i>) 27 January 2004 (27.01.2004)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant NSK LTD.		

	<p>1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).</p> <p>2. This REPORT consists of a total of 4 sheets, including this cover sheet.</p> <p>In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.</p>
3.	This report contains indications relating to the following items:
<input checked="" type="checkbox"/> Box No. I <input type="checkbox"/> Box No. II <input type="checkbox"/> Box No. III <input type="checkbox"/> Box No. IV <input checked="" type="checkbox"/> Box No. V <input type="checkbox"/> Box No. VI <input type="checkbox"/> Box No. VII <input type="checkbox"/> Box No. VIII	Basis of the report Priority Non-establishment of opinion with regard to novelty, inventive step and industrial applicability Lack of unity of invention Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement Certain documents cited Certain defects in the international application Certain observations on the international application
4.	The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

	Date of issuance of this report 22 August 2006 (22.08.2006)
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 338 82 70	Authorized officer Masashi Honda e-mail: pt08@wipo.int

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT

TRANSLATION

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

(PCT Rule 43bis.1)

		Date of mailing (day/month/year)
Applicant's or agent's file reference NSK002767PCT		FOR FURTHER ACTION See paragraph 2 below
International application No. PCT/JP2005/001162	International filing date (day/month/year) 21.01.2005	Priority date (day/month/year) 27.01.2004
International Patent Classification (IPC) or both national classification and IPC		
Applicant NSK LTD.		

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP	Authorized officer
Facsimile No.	Telephone No.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/JP2005/001162

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
 a sequence listing
 table(s) related to the sequence listing
 - b. format of material
 in written format
 in computer readable form
 - c. time of filing/furnishing
 contained in the international application as filed.
 filed together with the international application in computer readable form.
 furnished subsequently to this Authority for the purposes of search.
3. In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/JP2005/001162

Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement																			
<p>1. Statement</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; padding-right: 10px;">Novelty (N)</td> <td style="width: 60%; padding-right: 10px;">Claims</td> <td style="width: 20%; text-align: right; padding-right: 10px;">YES</td> </tr> <tr> <td></td> <td>1-13</td> <td style="text-align: right;">NO</td> </tr> <tr> <td style="padding-top: 10px;">Inventive step (IS)</td> <td>Claims</td> <td style="text-align: right;">YES</td> </tr> <tr> <td></td> <td>1-13</td> <td style="text-align: right;">NO</td> </tr> <tr> <td style="padding-top: 10px;">Industrial applicability (IA)</td> <td>Claims</td> <td style="text-align: right;">YES</td> </tr> <tr> <td></td> <td>1-13</td> <td style="text-align: right;">NO</td> </tr> </table> <p>2. Citations and explanations:</p> <p>The subject matters of claims 1-13 do not appear to be novel in view of document 1 (JP, 2001-50293, A [NACAM France S.A.], 23 February, 2001 (23.02.01), Full text & EP, 1065397, A & US, 6343993, A).</p> <p>Document 1 (Fig. 12, etc.) does not disclose a collapsible shaft for vehicle steering like the one used in the invention of the present application.</p> <p>Here, how to set the aperture of the “torque transmission part” and the deformable amount of the elastic body in the “preload part” is a question a person skilled in the art could have easily answered as required by taking into consideration such matters as backlash prevention (claims 1 and 2). Moreover, in consideration with arrangement of “preload parts” described in document 1, Fig 11 etc., how to arrange the “preload parts” and the “torque transmission parts” is also a question a person skilled in the art have easily answered (claim 8).</p> <p>Furthermore, forming a solid lubricating film over a collapsible shaft is a well-known, conventional art (claim 13) as disclosed in document 2 (JP, 2003-054421, A [NSK Ltd.], 26 February, 2003 [26.02.03] Full text [Family: none]).</p>			Novelty (N)	Claims	YES		1-13	NO	Inventive step (IS)	Claims	YES		1-13	NO	Industrial applicability (IA)	Claims	YES		1-13	NO
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	1-13	NO																		
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	1-13	NO																		
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